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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,567	12/12/2003	Chad D. Mueller	64180-197000	3927

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EXAMINER

BISSETT, MELANIE D

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/735,567

Applicant(s)

MUELLER ET AL.

Examiner

Melanie D. Bissett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

**DETAILED ACTION*****Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show Figure 2 as described in the specification (p. 21). Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-7, 9-12, 14-15, 18-23, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuriu et al. Kuriu et al. (US 5,562,996) can be found on the applicant's Form PTO-1449.
3. Kuriu discloses methods for preparing multi-layer films, where the films contain at least one layer of blended polyamide (abstract). The blending of crystalline and amorphous polyamide materials promotes film rupture resistance (col. 1 lines 48-57). Since the films are used to package meat products (col. 7 lines 29-37), it is the examiner's position that the multi-layer structures are capable of the claimed intended use as bone-in meat packaging films. Preferred crystalline polyamides to be blended with the amorphous polyamides include nylon 6 or nylon 6,66 (col. 2 lines 30-41). Preferred multi-layer structures include core EVOH layers sandwiched between two mixed polyamide layers and having outer polyolefin layers (col. 4 lines 47-61), and preferred EVOH resins comprise 25-50 mol% of ethylene content (col. 4 lines 18-23). The reference teaches a method of coextruding the layers and biaxially stretching the resulting film (col. 6 lines 38-43) to form films having thicknesses up to 100  $\mu\text{m}$  (3.9 mils; col. 5 lines 59-61). Examples 11-16 show layer structures of mixed polyamide (90% by weight nylon 6, 10% by weight amorphous polyamide or PA<sub>1</sub>, a blend of nylon 6, a crystalline aromatic polyamide, and an amorphous polyamide), EVOH, mixed polyamide (usually same as outer layer), modified polyolefin tie layer, and LLDPE heat seal layer. Thus, the barrier layer is between the sealant and a polyamide layer, a polyamide layer is between a sealant and barrier layer, the structure comprises an outer

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polyamide layer, and two polyamide layers surround the EVOH barrier layer. Tenter frames are used to orient the films in the lateral direction (col. 6 lines 46-50).

4. Claims 1-7, 9-12, 14-23, 25-29, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Ramesh et al. Ramesh et al. (US 6,274,228 B1) can be found on the applicant's Form PTO-1449.

5. Ramesh discloses a heat shrinkable film comprising an EVOH film, where the shrink properties are attained by annealing the film (abstract). Since the films are used to package meat products (col. 26 line 66-col. 27 line 10), it is the examiner's position that the multi-layer structures are capable of the claimed intended use as bone-in meat packaging films. The EVOH resin preferably comprises 38-44 mol% of ethylene content (col. 5 lines 61-64). Various polyamide, tie, ionomer layers, and polyolefin layers are also taught. The films are biaxially oriented by trapped bubble or tenter framing technique (col. 12 lines 9-30) and then annealed to form a uniform flat width and dimensionally stabilize the film (col. 12 lines 44-51). Irradiation is performed to crosslink the polymer networks of the layers (col. 24 lines 20-36). Also, the examples show steps of immersing the films in hot water before orientation. It is the examiner's position that this step would inherently serve to moisturize the structure, since water is applied to the layers.

6. Example 1 shows multi-layer films formed by coextruding, in tube shape, an outer ionomer layer, modified polyolefin tie layer, polyolefin layer, modified polyolefin tie layer, crystalline blend of nylon 6 and nylon 6/12, EVOH layer, crystalline blend of nylon

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6 and nylon 6/12, modified polyolefin tie layer, and heat sealant LLDPE layer. Thus, the barrier layer is between the sealant and a polyamide layer, a polyamide layer is between a sealant and barrier layer, two polyamide layers surround the EVOH barrier layer, and an outer layer of ionomer is noted. Example 2 shows a similar structure, where the film has an outer polyamide layer. The reference specifically notes that preferred polyamides include nylon 6 and nylon 6/66 and teaches that the polyamide layer may contain an amorphous polyamide (col. 17 lines 7-45). Polyamides selected from nylon 6, nylon 66, and nylon 6/66 are preferably used in amounts of at least 70% by weight. Thus, one skilled in the art would envision including an amorphous polyamide in amounts of less than 30% by weight in the polyamide layers. Film thicknesses range from 0.0075 mm to 0.25 mm (0.30-9.8 mils), preferably 0.035-0.09 mm (1.4-3.5 mils) (col. 24 lines 1-19).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh et al. in view of Falla.

9. Ramesh applies as above, teaching seal layers but failing to teach the use of a LLDPE/LDPE blend. Falla teaches film structures for food packaging, where a blend of

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LLDPE and LDPE in a coextruded product provides a sealing layer with improved leak resistance (col. 7 lines 41-51). Thus, it is the examiner's position that it would have been prima facie obvious to use a sealing layer of LLDPE and LDPE to improve the leak resistance of the sealing films.

10. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh et al. in view of Pahlke.

11. Ramesh applies as above, teaching biaxial orientation by a "trapped bubble" technique but not specifying the use of the "double bubble" technique. Pahlke teaches a conventional "double bubble" method of biaxially orienting thermoplastic films, where the method serves to improve the thickness uniformity, clarity, gloss, shrinkage, and tensile strength of the films (col. 2 lines 17-45). Thus, it is the examiner's position that it would have been prima facie obvious to use the conventional "double bubble" technique of Pahlke's invention to improve the thickness uniformity, clarity, gloss, shrinkage, and tensile strength of the Ramesh films.

### ***Double Patenting***

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

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patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 1-31 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4-20, 22-27, and 30-43 of copending Application No. 10/734,401 in view of Schmal et al.

14. The copending claims are drawn to a package for bone-in meat comprising the same multi-layer structure of the present claims. The copending claims limit the multi-layer structure to a coextruded, oriented structure. Thus, one of ordinary skill in the art would envision the method of coextruding the layers and orienting the multi-layer film. However, the copending claims do not specify *biaxially* orienting the film. Schmal teaches a multi-layer laminate for packaging meats (abstract), where the films are extruded and biaxially oriented to provide a heat shrinkable film that is shrinkable in two directions (col. 10 lines 33-61). Processes include double bubble and tenter framing. Films are oriented to improve the shrink properties, tear strength, tensile strength, and gas and vapor transmission (col. 10 lines 8-22). It is the examiner's position that it would have been prima facie obvious to biaxially orient the films of the copending claims to provide heat shrinkable films that are shrinkable in two directions, providing improved tear strength, tensile strength, and gas and vapor transmission.

15. The limitations of claims 2-29 would be envisioned by the copending claims 4-20, 22-27, and 30-43.

This is a provisional obviousness-type double patenting rejection.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie D. Bissett whose telephone number is (571) 272-1068. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melanie D. Bissett  
Patent Examiner  
Art Unit 1711

mdb